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TASK 7. SERVICE AND SUPPORT

There has been no activity on this Task during this reporting period.

TASK 8. AS-6 DATA TELEMETERING SYSTEM

Field Unit: Tests involving the service models of both the Collector and Communication packages were conducted from June 1 to June 6; the purpose of which was to solve the various r-f feedback problems encountered in earlier tests employing these two units. The final results of these tests were most gratifying and were achieved only after the addition of proper filtering networks to all critical circuits and the rearrangement of existing shielding and ground connections. Many tests were conducted with no recurrence of the r-f problem. During the final two days of testing, three separate sitings of the equipment were made--one at the [] location, and two at the [] [] Successful operation was achieved at all locations. On the last day of the r-f testing, a series of transmissions were made, using the special battery. Over forty transmissions were made during a period of two hours, without a significant drop-off in battery voltage.

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Work on the deliverable model is well under way. The digital converter and stepping oscillator assembly has been completed and tested. The exciter is now in the process of final assembly and alignment. The power amplifier has been assembled and tested on a limited number of channels and now awaits the completion of the exciter so that final testing can be completed. Work on the case itself is nearing completion and will be available by the first week in July. Work on the controls is well under way.

The fifteen foot vertical antenna with an eighteen inch lead-in wire has had its impedance measured on all operating frequencies using two different environmental locations. One location was on dry soil and the other in a relatively damp location.

The deliverable model of the Field Unit receivers, except for the r-f front end assembly, has been completed. Bench testing at room temperature has been completed and test results are satisfactory. Environmental testing is scheduled for completion in early July.

[] most recent delivery schedule for the ten r-f front end converter units is on or before 15 July.

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Base Station: Crystals for the final operating frequencies were ordered and received. These crystals will be installed in the terminals during the month of July.

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Arrangements have been made with a local storage company to pack and transport this equipment to a local airport.

About ninety percent of the modification work required for remote operation of the Transmit Terminal has been completed.

TASK 9. LINEAR EXCITER FOR AS-4A

This program has been delayed indefinitely, pending decisions on the future course of the AS-4B Program. This action has been concurred in by the cognizant Government engineers.

TASK 10. FABRICATION OF RS-16B

To date, three RS-16B Field Units have been delivered to the Government. Four additional units have been tested locally into a Base Receive Terminal and will be delivered early in the next reporting period.

TASK 11. RS-16B BATTERY CHARGER

A prototype of the battery charger has been delivered to the Government and parts procurement for the production model has been started. Assembly at the bulk of the units should take place during the next reporting period.

TASK 12. RS-16B ANTENNA TUNERS

Evaluation of the laboratory model of the antenna coupler is now complete and mechanical design of the prototype has been started. The number of transistors in the channel oscillators has been reduced from three to two and now an investigation is being made to determine the possibility of using small internal mercury cell batteries for the